

**BY ORDER OF THE CHIEF,
NATIONAL GUARD BUREAU**



MANPOWER STANDARD 23LIAR

28 AUGUST 2003

Manpower Standard

MUNITIONS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Air National Guard Manpower Standard (ANGMS) quantifies the manpower required to accomplish the tasks described in the process oriented description (POD) for varying levels of workload in the 189th Airlift Wing whose mission it is to provide aircrew training for students from each branch of the military that flies the C-130 aircraft and from 27 foreign countries. This standard applies to the 189th Airlift Wing, Little Rock Air Force Base, Arkansas, and encompasses all major processes performed within the Munitions function. It does not apply to any other units. This standard is applicable to peacetime operations only. The Air National Guard (ANG) is authority for the approval and publication of ANG Manpower Standards. Air Force (AF) and ANG directives contain policy and procedural guidance for the operation of Munitions. This standard was developed in accordance with AF Instruction (AFI) 38-201, *Determining Manpower Requirements*, and AF Manual (AFMAN) 38-208, Volume 1, *Air Force Management Engineering Program (MEP) Processes*, and AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP) - Quantification Tools*. Send comments and suggested improvements on AF IMT 847, *Recommendation for Change of Publication*, through channels, to ANG, Management Engineering Branch (ANG/XPME/Operating Location TN [OLTN]), 106 Briscoe Drive, McGhee Tyson Air National Guard Base, TN 37777-6283.

1. STANDARD DATA.

1.1. Approval Date: 28 August 2003.

1.2. Man-hour Data Sources: The Operational Audit (historical record and technical estimate) technique was used to collect/determine man-hour/manpower data.

1.3. Standard Manpower Equation: $Y = 33.99 + 3.669X$.

1.4. Workload Factor.

1.4.1. Title: X= Average monthly number (in thousands) of munitions assets in inventory.

1.4.2. Definition: Annual munitions allocations based on unit mobility, operational, and training requirements.

1.4.3. Source: AFCAT 21-209, Volume 1, *Ground Munitions*. Complete allocation document is maintained by NGB/LGMW.

1.5. Points of Contact.

1.5.1. Functional: Col John J Samuhel, 189 MX/CC

1.5.2. Manpower: George W. Tatum III, ANG/XPME/OLTN

2. APPLICATION INSTRUCTION.

2.1. Equation. Apply the equation in Paragraph 1.3., to determine the required man-hours.

2.2. Man-Hour Availability Factor (MAF). Divide the resulting man-hours by the appropriate MAF/overload factor. The answer, rounded up, will quantify the required manpower.

2.3. Upper and Lower Extrapolation Limits:

2.3.1. $Y_U = 283.244$.

2.3.2. $Y_L = 169.946$.

3. STATEMENT OF CONDITIONS. The normal hours of operation for this function are 80 hours per two-week period. The alternate work schedule of eight nine hour days, and one eight hour day is the norm. No environmental, equipment, or facility conditions affect this Manpower Standard.

DANIEL JAMES III, Lieutenant General, USAF
Director, Air National Guard

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 38-201 *Determining Manpower Requirements*

AFMAN 38-208, Volume 1, *Air Force Management Engineering Program (MEP)-Process*

AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP)-Quantification Tools*

AFCAT 21-209, Volume 1, *Ground Munitions*

AFMS 00AA, *Standard Indirect Description*

Abbreviations and Acronyms

ADPE - Automated Data Processing Equipment

ADR - Ammunition Disposition Request

AF - Air Force

AFMS - Air Force Manpower Standard

ANG - Air National Guard

ANGMS - Air National Guard Manpower Standard

CAS-B - Combat Ammunition System

DRMO - Defense Reutilization Management Office

HAZMAT - Hazardous Materiel

IMT - Information Management Tool

MAF - Man-Hour Availability Factor

MAJCOM - Major Command

MASO - Munitions Accountable Systems Officer

MEP - Management Engineering Program

MMHE - Munitions Material Handling Equipment

MSI - Manpower Standards Implementation

PI - Periodic Inspection

PII - Pre-Issue Inspection

POD - Process Oriented Description

RI - Receiving Inspection

RMI - Returned Munitions Inspection

SI - Shipping Inspection

SMI - Storage Monitoring Inspection

SPI - Special Inspection

UMD - Unit Manpower Document

UTA - Unit Training Assembly

Terms

Air National Guard Manpower Standard (ANGMS). A numbered, specialized publication that quantifies manpower requirements for a work center, it also includes approved variances. See AFI 38-201.

Man-Hour. A unit of measuring work. It is equivalent to one person working at a normal pace for 60 minutes, two people working at a normal pace for 30 minutes, or similar combination of people working at a normal pace for a period of time equal to 60 minutes.

Manpower Standard. The basic tool used to determine the minimum level of manpower required to support a function. It is a quantitative expression that represents a work center's man-hour requirements in response to varying levels of workload.

Process Oriented Description. A format that shows work center responsibilities structured for easy measurement of work categories, tasks and subtasks.

Attachment 2

PROCESS ORIENTED DESCRIPTION
MUNITIONS

Table A2.1. Listing of Functional Processes.

1.	MUNITIONS ACCOUNTABILITY:
1.1.	DEVELOPS ANNUAL FIVE-YEAR MUNITIONS FORECAST.
1.2.	CONSOLIDATES AND SUBMITS FIVE-YEAR FORECAST TO MAJOR COMMAND (MAJCOM).
1.3.	RECEIVES AND REVIEWS ALLOCATION DOCUMENT FROM MAJCOM.
1.4.	INPUTS ALLOCATIONS FOR CUSTODY ACCOUNT TO COMBAT AMMUNITION SYSTEM (CAS-B).
1.5.	DISTRIBUTES FISCAL YEAR ALLOCATIONS TO USER.
1.6.	REPORTS SERVICEABLE EXCESS TO MAJCOM FOR REDISTRIBUTION.
2.	MUNITIONS ACCOUNTABLE SYSTEMS OFFICER (MASO):
2.1.	PERFORMS MUNITIONS PLANNING.
2.2.	PROVIDES TECHNICAL TRAINING.
2.3.	DEVELOPS AND PUBLISHES WING OPERATING INSTRUCTION TO AID COMMANDERS AND CUSTODIANS IN MUNITIONS ACCOUNTABILITY PROCEDURES.
2.4.	PROVIDES USING COMMANDERS A BRIEFING ON CUSTODY ACCOUNT RESBONSIBILITY
2.5.	PROVIDES TRAINING TO PRIMARY AND ALTERNATE CUSTODIANS ON CUSTODY ACCOUNT RESPONSIBILITIES.
2.6.	PROVIDES WRITTEN AND VERBAL NOTIFICATION OF RESTRICTED OR SUSPENDED MUNITIONS TO AFFECTED USER.
2.7.	PROVIDES REQUIREMENTS TO INSTALLATION DEPLOYMENT PLAN ON DEPLOYED MUNITIONS MANAGEMENT.
3.	SUPERVISION:
3.1.	MONITORS SHIFT MANNING.

3.2.	MANAGES ADDITIONAL DUTIES AND LEAVES TO MINIMIZE WORK FORCE DEGRADATION.
3.3.	ENSURES OPERATIONS INVOLVING EXPLOSIVES ARE PERFORMED BY A MINIMUM OF TWO QUALIFIED MUNITIONS PERSONNEL.
3.4.	RESEARCHES AND INTERPRETS APPLICABLE INSTRUCTIONS, MANUALS, AND OCCUPATIONAL SAFETY AND HEALTH STANDARDS.
3.5.	REVIEWS NEW, REVISED, OR CHANGED PUBLICATION FOR SIGNIFICANT CHANGES.
3.6.	DEVELOPS AND PUBLISHES OPERATING INSTRUCTION TO AID FLIGHT PERSONNEL IN MANAGEMENT AND MAINTENANCE OF CONVENTIONAL MUNITIONS.
3.7.	ENSURES MUNITIONS MATERIAL HANDLING EQUIPMENT (MMHE), SUPPORT EQUIPMENT, AND TOOLS NEEDED ARE ON-HAND AND PROPERLY UTILIZED.
3.8.	PERFORMS SUPERVISORY REVIEW ON EQUIPMENT AND FORMS AND MONITORS STATUS.
3.9.	WRITES AND APPROVES COURTESY STORAGE AGREEMENTS FOR CUSTODY ACCOUNTS.
3.10.	APPOINTS SENIOR MUNITIONS INSPECTOR IN WRITING.
3.11.	MANAGES SPECIAL CERTIFICATION ROSTER.
3.12.	SUBMITS REPORTS AND STATICAL DATA TO MAJOR COMMAND.
3.13.	REVIEWS AND RESPONDS TO FORMAL INSPECTION REPORTS.
4.	PERSONNEL SAFETY:
4.1.	IMPLEMENTS EXPLOSIVE SAFETY AND INDUSTRIAL SAFETY PROGRAMS.
4.2.	COMPLETES MUNITIONS CREW BOOK.
4.3.	CONDUCTS PRE-TASK SAFETY BRIEFING.
4.4.	ACCOUNTS FOR PERSONNEL.
4.5.	MANAGES FLIGHT HAZARDOUS MATERIEL (HAZMAT) PROGRAM.

4.6.	MAINTAINS TECHNICAL ORDERS.
4.7.	OBTAINS AND UTILIZES PERSONAL PROTECTIVE EQUIPMENT WHEN PERFORMING MAINTENANCE FUNCTIONS.
5.	WEAPONS SAFETY:
5.1.	COORDINATES WITH BASE WEAPONS SAFETY.
5.2.	PERFORMS FLIGHT EXPLOSIVE SAFETY TRAINING.
6.	SECURITY PROGRAM MANAGEMENT:
6.1.	MAINTAINS AND UTILIZES KEY ISSUE LOG.
6.2.	PERFORMS DAILY KEY INVENTORIES.
6.3.	PERFORMS CONTROLLED AREA ESCORT DUTY.
6.4.	PROVIDES SECURE TRANSPORT OF MUNITION ASSETS TO OFF-BASE USERS.
6.5.	MAINTAINS PROFICIENCY IN THE USE OF M-9 WEAPON.
6.6.	VERIFIES REQUIRED FORMS FOR CAS-B VAULT.
7.	STORAGE:
7.1.	TRANSPORTS REQUIRED MUNITIONS.
7.2.	DEVELOPS AND MANAGES A MASTER STORAGE PLAN.
7.3.	UTILIZES STANDARDIZED MUNITIONS STORAGE LOCATION SYSTEM.
7.4.	SEGREGATES BASE STOCK, CUSTODY ACCOUNT, AND UNSERVICEABLE MUNITIONS.
7.5.	VERIFIES COMPATIBILITY OF MUNITIONS.
7.6.	COMPLETES AF IMT 4147, <i>MUNITIONS MOVEMENT CONTROL WORKSHEET</i> .
7.7.	PROCESSES LOCATION CHANGES.
7.8.	UPDATES AND MANAGES MOVEMENT CONTROL LOG.

7.9.	PERFORMS HOUSEKEEPING ON ALL STRUCTURES AT LEAST MONTHLY.
7.10.	APPLIES APPROPRIATE FIRE SYMBOL AND HAZARD CLASS SIGN TO STRUCTURE.
7.11.	UPDATES FIRE DEPARTMENT ON FIRE SYMBOL AND CHEMICAL SYMBOL CHANGES.
7.12.	PERFORMS PRE-USE AND POST-USE INSPECTION ON GAS/DIESEL FORKLIFT.
7.13	INSPECTS PERSONNEL PROTECTIVE EQUIPMENT.
8.	INSPECTION:
8.1.	ACCOMPLISHES DOCUMENTATION OF INSPECTION RESULTS.
8.2.	MAINTAINS A TRAINING AND CERTIFICATION PROGRAM FOR INSPECTORS:
8.2.1.	PERFORMS PERIODIC INSPECTION (PI).
8.2.2.	PERFORMS PRE-ISSUE INSPECTION (PII).
8.2.3.	PERFORMS STORAGE MONITORING INSPECTION (SMI).
8.2.4.	PERFORMS SPECIAL INSPECTION (SPI).
8.2.5.	PERFORMS SHIPPING INSPECTION (SI).
8.2.6.	PERFORMS RECEIVING INSPECTION (RI).
8.2.7.	PERFORMS RETURNED MUNITIONS INSPECTION (RMI).
8.3.	MANAGES SHELF AND SERVICE LIFE.
8.4.	IDENTIFIES RESTRICTED OR SUSPENDED ASSETS.
8.5.	INITIATES AMMUNITION DISPOSITION REQUEST (ADR).
8.6.	PERFORMS RE-PACKING OF MUNITIONS.
8.7.	INPUTS INSPECTION RESULTS IN CAS-B.
8.8.	PERFORMS EMPTY CONTAINER CERTIFICATION.

8.9.	MAINTAINS FLIGHT TECHNICAL ORDER LIBRARY.
9.	MUNITIONS INVENTORY:
9.1.	PERFORMS MONTHLY 10 PERCENT INVENTORY.
9.1.1.	PERFORMS PHYSICAL INVENTORY.
9.1.2.	UPDATES INVENTORY RESULTS.
9.2.	PERFORMS SEMI-ANNUAL 100 PERCENT INVENTORY:
9.2.1.	PERFORMS PHYSICAL INVENTORY.
9.2.2.	UPDATES INVENTORY RESULTS.
9.3.	PERFORMS SEMI-ANNUAL UNSERVICEABLE INVENTORY:
9.3.1.	PERFORMS PHYSICAL INVENTORY.
9.3.2.	UPDATES INVENTORY RESULTS.
9.4.	ASSISTS IN QUARTERLY CUSTODY ACCOUNT INVENTORY:
9.4.1.	PERFORMS PHYSICAL INVENTORY.
9.4.2.	UPDATES INVENTORY RESULTS.
9.5.	RESEARCHES INVENTORY DISCREPANCIES.
9.6.	INPUTS CORRECTION OF INVENTORY DATA TO CAS-B.
10.	CUSTODY ACCOUNT:
10.1.	ESTABLISHES CUSTODY ACCOUNT.
10.2.	INPUTS ORGANIZATIONAL SHOP CODE IN CAS-B.
11.	MUNITIONS RESIDUE/EXPENDED BRASS:
11.1.	SEPARATES, INSPECTS, AND CERTIFIES MUNITIONS RESIDUE AND EXPENDED BRASS.
11.2.	PACKS, SEALS, WEIGHS AND MARKS CONTAINERS OF RESIDUE AND EXPENDED BRASS.
11.3.	PREPARES FOR TURN-IN TO DEFENSE REUTILIZATION MANAGEMENT OFFICE (DRMO).

11.4.	TRANSPORTS TO DRMO.
11.5.	PERFORMS DOCUMENT CONTROL.
12.	MAINTENANCE:
12.1.	PERFORMS STENCIL MACHINES INSPECTION AND MAINTENANCE.
12.2.	PERFORMS PALLET JACK INSPECTION AND MAINTENANCE.
12.3.	PERFORMS HEAT SEALER INSPECTION AND MAINTENANCE.
12.4.	PERFORMS HYDRAULIC JACK INSPECTION AND MAINTENANCE.
12.5.	MAINTAINS INSPECTION RECORD FOR EQUIPMENT.
13.	COMBAT AMMUNITION SYSTEM BASE (CAS-B):
13.1.	ESTABLISHES WORKCENTER.
13.2.	PERFORMS CAS-B WORKGROUP ADMINISTRATOR DUTY.
13.3.	MANAGES SYSTEM OPERATIONS, SOFTWARE AND UPGRADES.
13.4.	MAINTAINS STRICT ENVIRONMENTAL REQUIREMENTS.
13.5.	PERFORMS SYSTEM OPERATOR DUTIES.
13.6.	MANAGES SYSTEM.
13.7.	MANAGES AUTOMATED DATA PROCESSING EQUIPMENT (ADPE) ACCOUNT.
13.8.	PERFORMS SYSTEM ADMINISTRATION SOFTWARE RESPONSIBILITIES.
13.9.	PERFORMS AS CAS-B SYSTEMS SECURITY OFFICER:
14.	MUNITIONS OPERATIONS:
14.1.	PROCESSES MUNITIONS REQUISITIONS.
14.2.	RECEIVES MUNITIONS:
14.2.1.	PROCESSES RECEIPT.
14.2.2.	UPDATES RECEIPT INSPECTION HISTORY.
14.3.	PROCESSES MUNITIONS SHIPMENT:

14.3.1.	UPDATES SHIPMENT INSPECTION HISTORY.
14.3.2.	SUBMITS SHIPMENT PAPERWORK TO TRAFFIC MANAGEMENT OFFICE.
14.3.3.	UPDATES DATE OF DEPARTURE FOR SHIPMENT.
14.4.	MANAGES CAS-B CUSTODY ACCOUNT:
14.4.1.	MANTAINS ORGANIZATIONAL ACCOUNT INFORMATION:
14.4.2.	GENERATES MANAGEMENT LISTINGS AND INVENTORIES.
14.4.3.	SELECTS MUNITIONS FOR ISSUE AND TURN-IN.
14.4.4.	PROCESSES AF IMT 2005 <i>ISSUE TURN-IN REQUEST</i> , AND EXPENDITURE DOCUMENTS.
14.4.5.	RECONCILES CUSTODY ACCOUNT.
14.4.6.	MAINTAINS STORAGE, AND PERIODIC INSPECTION LISTINGS.
14.4.7.	INPUTS SHELF AND SERVICE LIFE DATA.
14.5.	PROVIDES COURTESY STORAGE TO CUSTODY ACCOUNTS:
14.5.1.	MONITORS INSPECTION CYCLE DATA.
14.5.2.	MONITORS INVENTORY CYCLE.
14.5.3.	UPDATES COURTESY STORAGE AGREEMENTS ON CUSTODY ACCOUNTS.
14.6.	PROCESSES REVERSE POST TRANSACTIONS.
14.7.	PERFORMS DOCUMENT CONTROL.
14.8.	PERFORMS ADMINISTRATION FILE MAINTENANCE FOR ALL AUDITABLE DOCUMENTATION.
14.9.	MANAGES CAS-B LISTING AND TRANSACTION REGISTER.
14.10.	MANAGES SHIPPING LOG.
14.11.	PERFORMS END-OF-YEAR ACCOUNT PROCESSING:
14.11.1.	RECONCILES ACCOUNT INFORMATION.

14.11.2.	STORES ACTIVE AND IN-ACTIVE AUDITABLE DOCUMENTS AND LISTINGS.
15.	MUNITIONS CONTROL:
15.1.	MANAGES IS400A, STATUS OF EQUIPMENT LISTING.
15.2.	MAINTAINS MAP SHOWING ENTIRE MUNITIONS STORAGE AREA, PRIMARY, AND ALTERNATE EXPLOSIVES ROUTES AND EVACUATION ROUTES.
15.3.	DIRECTS EMERGENCY RESPONSE AGENCIES.
15.4.	COORDINATES REQUIREMENTS WITH OUTSIDE AGENCIES.
15.5.	MANAGES VISITOR ENTRY INTO THE MUNITIONS STORAGE AREA.
15.6.	MANAGES AWAITING MAINTENANCE / AWAITING PARTS PROGRAM.
16.	INDIRECT. Indirect work involves those tasks that are not readily identifiable with the work center's specific product or service. The major categories of standard indirect work are: Administers Civilian, Officer, and Enlisted Personnel; Directs Work Center Activity; Provides Administrative Support; Prepares for and Conducts/Attends Meeting; Administers Training; Manages Supplies; Maintains Equipment; and Performs Cleanup.

Attachment 3**MANPOWER TABLE****A3.1. Standard Manpower Table**

Air Force Specialty Title	AFSC	Grade	Manpower Requirement	
Munitions Systems Supvr	2W071	Civ	1	1
Munitions Systems Crft	2W071	Civ	1	2
Total			2	3

NOTE. AFSCs may be adjusted at the discretion of the Commander.